

6 A.A.  
approximately 2733 Da. as determined by ion-spray mass spectrometry, and the N-terminal amino acid sequence represented by SEQ ID NO: 1, or an antibacterial fragment or variant thereof which variant has greater than 80% amino acid sequence homology with said protein.

2. (Amended) An isolated antibacterial protein having the amino acid sequence of SEQ ID NO: 3 or an antibacterial fragment or variant thereof, which variant has greater than 80% amino acid sequence homology with said protein.

3. (Amended) An isolated antibacterial protein having the amino acid sequence of SEQ ID NO: 3, or a protein having 80% homology.

4. (Amended) An isolated antibacterial protein which has an amino acid sequence which differs from the sequence of SEQ ID NO: 3 by the insertion, deletion or substitution of from one to three amino acids.

C2 23. (Amended) A therapeutic formulation as claimed in claim 20 which includes one or both of Salivaricin-A, an organism which can express Salivaricin A, the antibacterial protein which has the amino acid sequence of SEQ ID NO:5, or an organism which can express the antibacterial protein which has the amino acid sequence of SEQ ID NO:5.

C3 27. (Amended) An organism, in substantially pure form, which includes a polynucleotide which:

- a) encodes a protein as claimed in any one of claims 1-6;
- b) comprises the coding sequence of SEQ ID NO:2; or
- c) encodes a protein as claimed in any one of claims 1-6, comprising the DNA sequence which encodes an antibacterial protein as claimed in claim 1, which is part of the genome of *S. salivarius* strain K12, on deposit at Deutsche Sammlung von Mikroorganismen Und Zellkulturen GmbH, Braunschweig, Germany, accession number DSM 13084.

C4 35. (Amended) A method as claimed in claim 33 wherein said inhibitory effect is caused by colonising at least part of the upper respiratory tract of an individual with a viable organism in substantially pure form which expresses said protein.

C5 40. (Amended) A method of treatment of a patient against infections of the upper respiratory tract caused by streptococcal organisms which comprises the steps of:

- (i) orally administering to said patient an amount of an antibiotic effective to reduce the numbers of streptococci present; and